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(56) Documents Cited

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WO 00/33269 A1	BE 000850078 A
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(54) Abstract Title  
**Double wheel roulette apparatus**

(57) Automatic gaming apparatus comprises a pair of roulette wheels (2,4). The gaming apparatus allows a player to win at greater odds if the same result occurs on both wheels, a portion of the total money wagered is accumulated over a period of time and held as a jackpot the whole or a portion of which may be paid out to a player in addition to their ordinary reward. Apparatus having a pair of display screens (14,16) arranged to present an image of one wheel to a player located beside the other wheel is also described, along with apparatus which allows bets to be placed on either a result from a single wheel or on a combination of the two. The apparatus may also be arranged so that on each play of the apparatus respective balls are released in turn onto the surfaces of the two wheels, the second of the two balls being released before the first ball has come to rest.

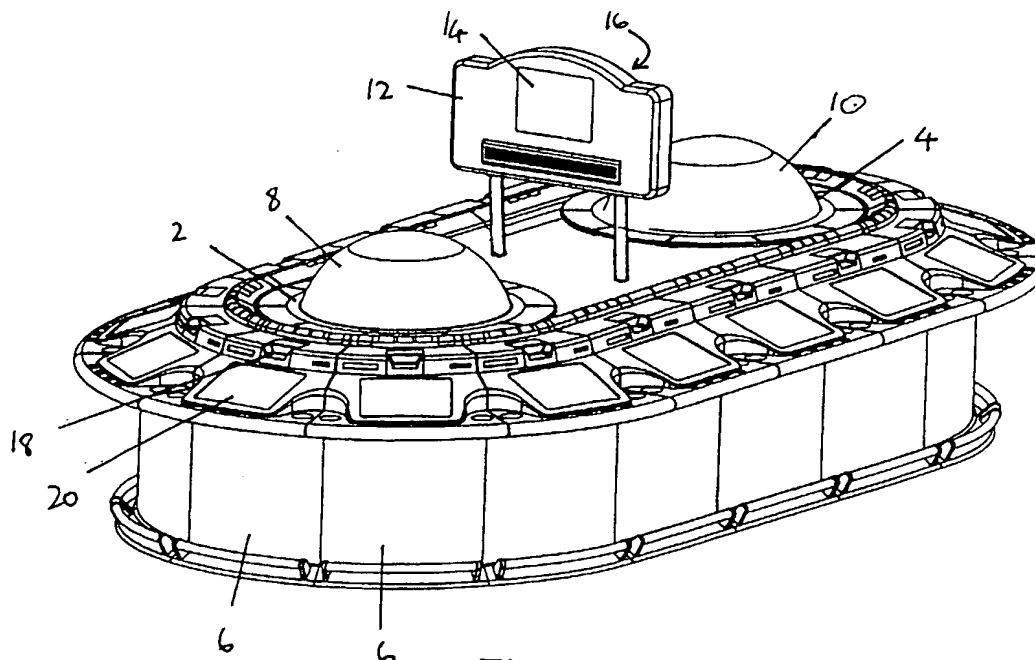


Figure 1

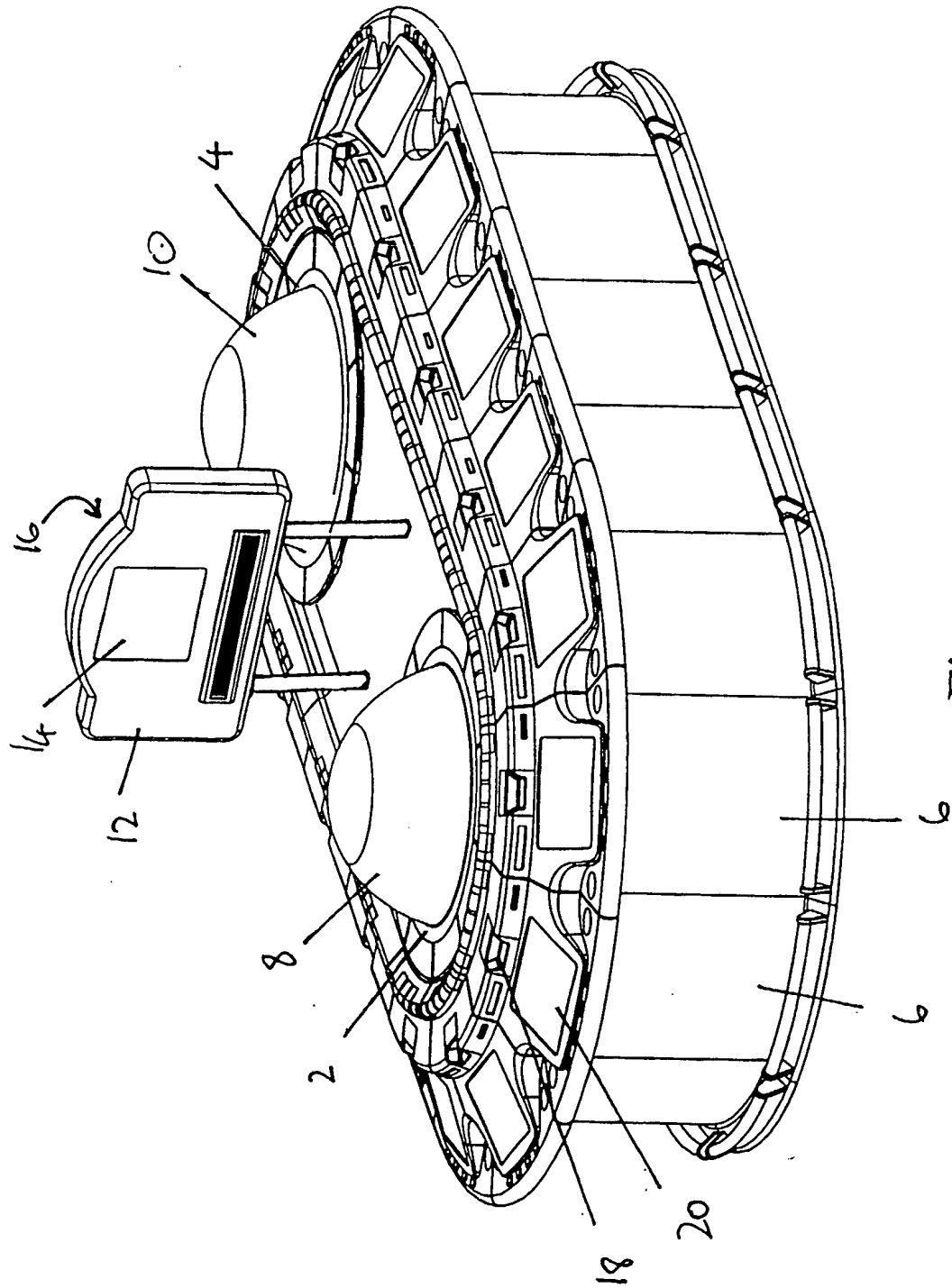


Figure 1

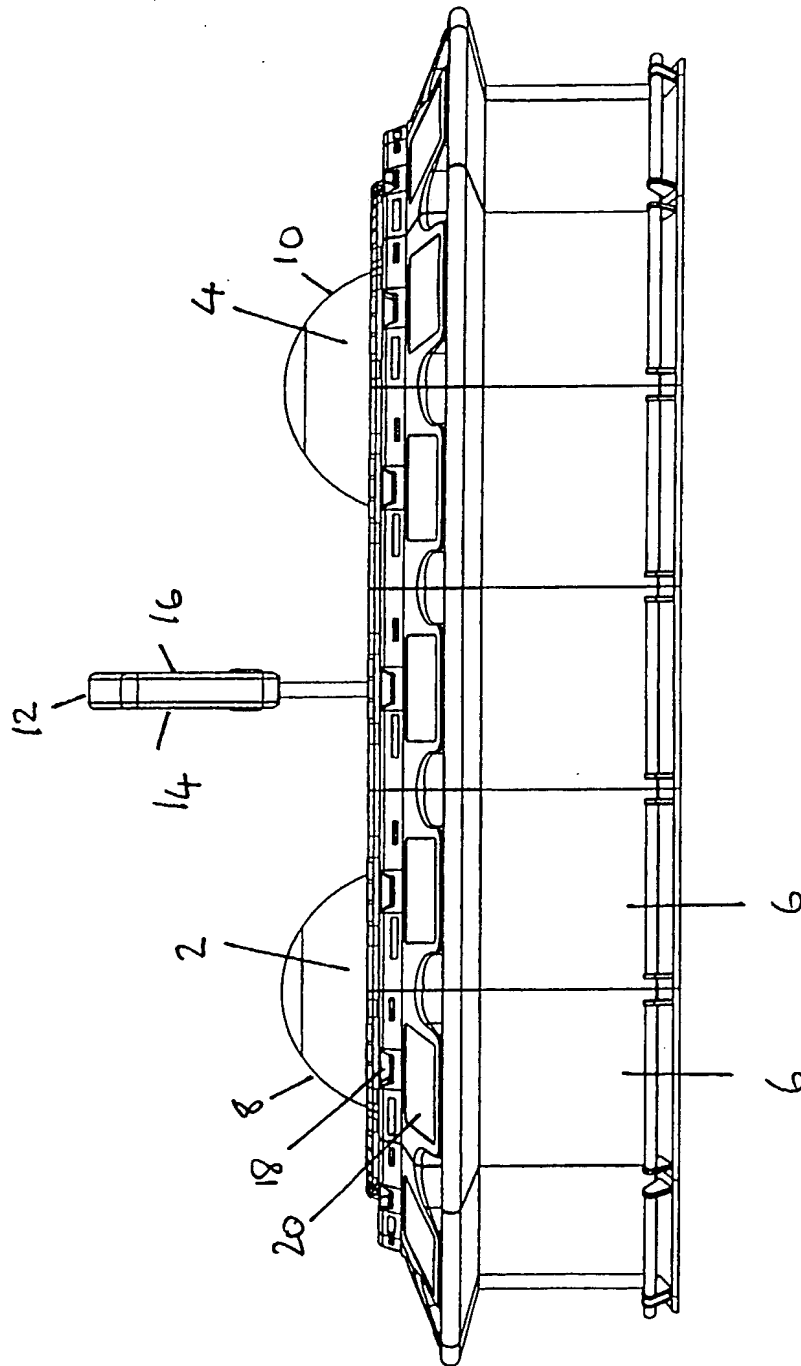


Figure 2

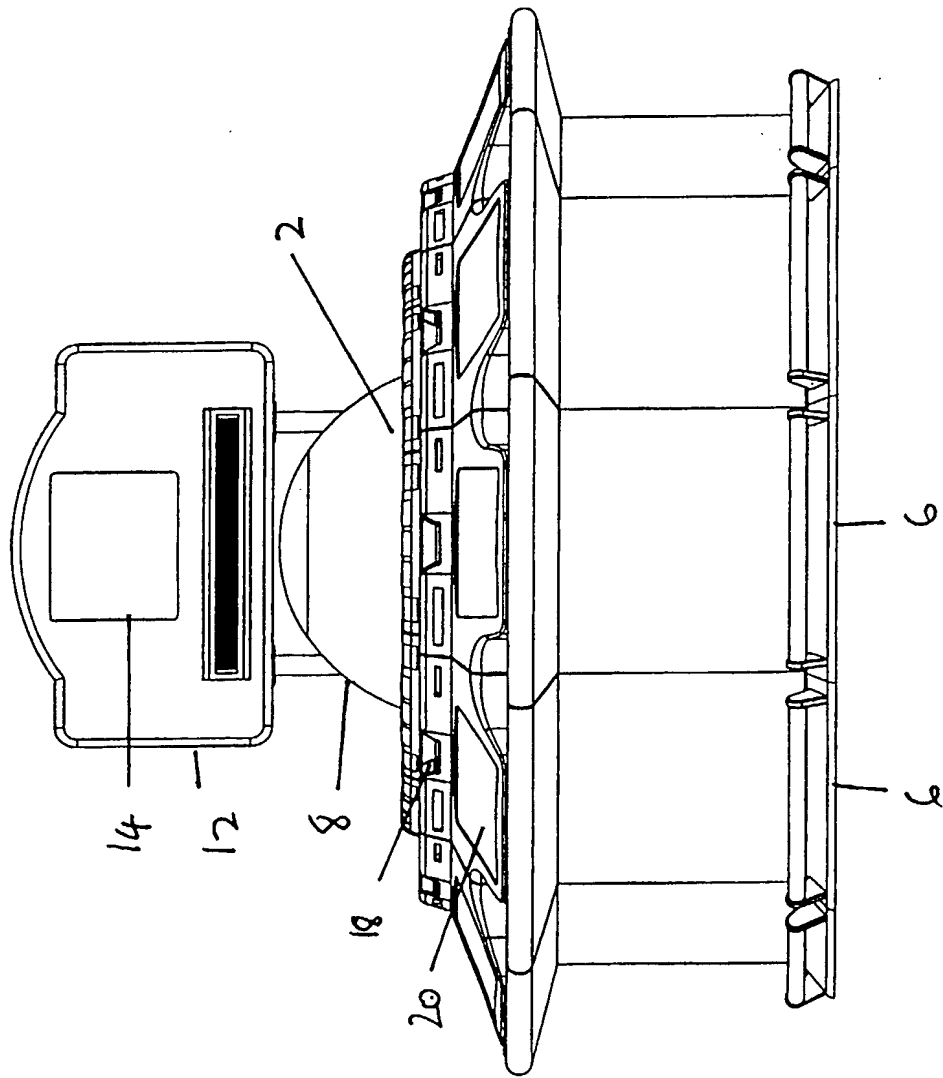


Figure 3

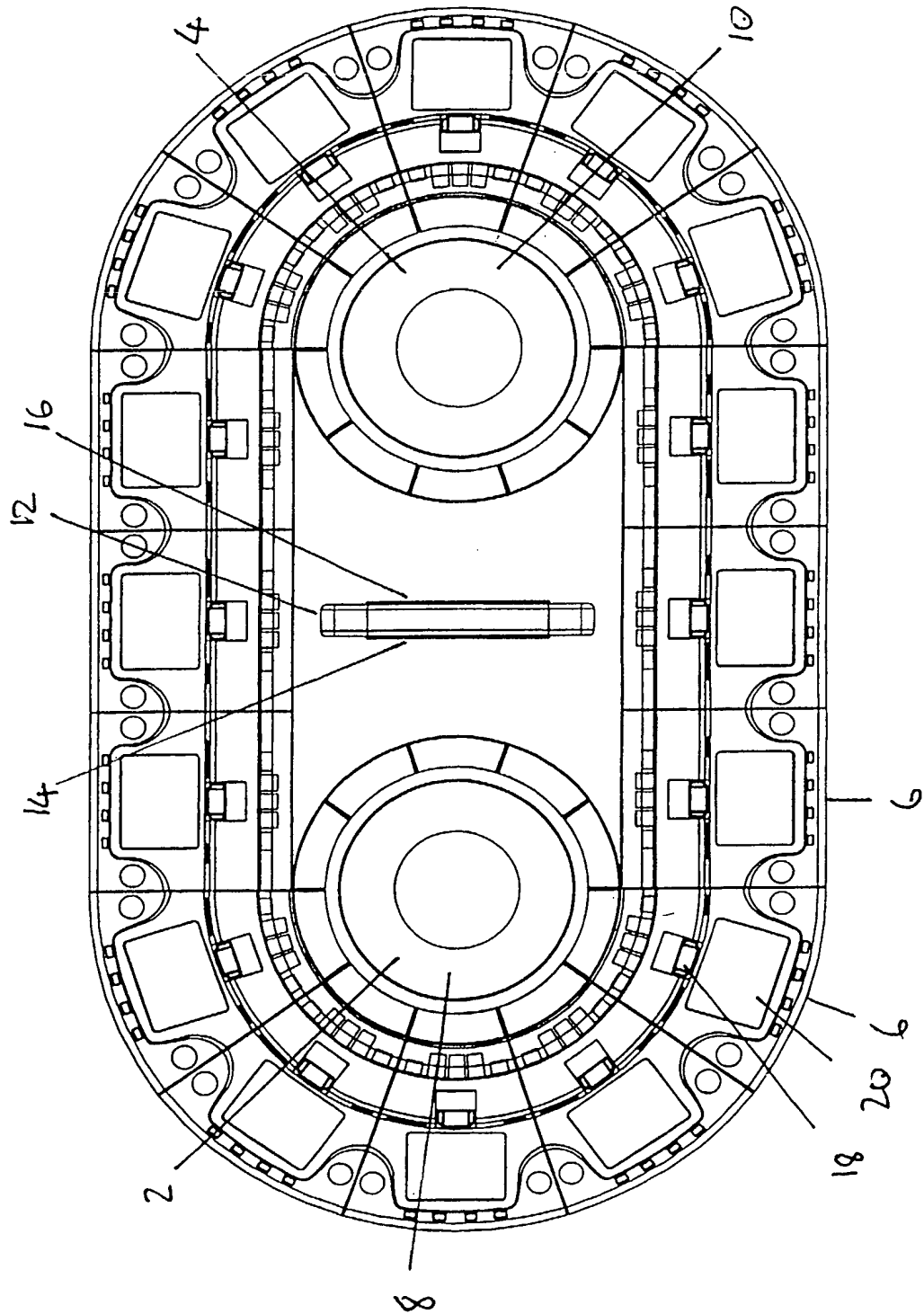


Figure 4

## AUTOMATIC GAMING APPARATUS

The present invention relates to an automatic gaming apparatus and, more particularly, to an automatic gaming apparatus based upon the game of roulette.

The gaming industry is a rapidly evolving one, in which new apparatus are  
5 continually being devised to provide gamblers with increasingly more interesting and exciting games.

The game of roulette has, for many years, provided a very popular form of gambling in casinos throughout the world. However, the traditional game of roulette is limited in the levels of interest and excitement that it can provide a player.

10 In recent years, various automatic roulette apparatus have been devised. However, to date, all such apparatus have been based very closely upon the traditional game of roulette and have therefore been of limited interest and excitement to the gambler.

We have now devised an automatic gaming apparatus based upon the game of roulette which provides players with increased levels of interest and excitement.

15 In accordance with the present invention, there is provided an automatic gaming apparatus comprising a pair of roulette wheels and arranged such that on each play of the apparatus, a respective ball is released onto the surface of each wheel and comes to rest within a compartment thereof to provide a unique result, with a player being rewarded if the same result occurs on both wheels and if the player has placed a bet upon that winning result,  
20 wherein a winning player is rewarded at less than full odds, so that the apparatus progressively accumulates a portion of the total money wagered by players over a period of time, a portion of the accumulated money being held as a jackpot, the whole or a portion of which may be paid out on any play of the apparatus to a winning player in addition to his ordinary reward.

We have found that such an apparatus creates a heightened sense of anticipation  
25 and excitement in play as the jackpot progressively increases in value over time, and will therefore hold a player's interest for far longer than a traditional apparatus.

The whole or a portion of the jackpot may be paid out each time a player is rewarded for having bet upon a winning result occurring on both wheels. However, more preferably, the whole or a portion of the jackpot is paid out on a random basis. In the latter  
30 case, the whole or a portion of the jackpot is preferably paid out if a randomly selected result

matches a winning result occurring on both wheels.

If a plurality of players qualify for a jackpot payout, the jackpot is preferably divided between those players in proportion to the relative amounts wagered by each of them on the winning number.

5 Preferably, the apparatus is arranged such that on each play of the apparatus a player may also or otherwise place a bet upon a particular result occurring on just one of the wheels.

Preferably the apparatus is arranged such that the two balls come to rest at different times, with the first result preferably occurring on said just one wheel. The balls preferably  
10 come to rest in the same order on each play of the apparatus. The apparatus is preferably arranged such that the second of the two balls to be released is released before the first ball come to rest.

Also in accordance with the present invention, there is provided an automatic gaming apparatus comprising a pair of roulette wheels and a pair of display screens, each  
15 screen being arranged to present an image of a respective one of said wheels to a player located alongside the other wheel.

Thus a player or spectator can conveniently observe separate games played on each of the two wheels or a single game whose outcome is determined by the results occurring on both wheels.

20 For convenience, the two wheels may be mounted adjacent one another, with the two display screens being provided on opposite sides of a panel which extends tangentially between the two wheels. Alternatively, the two screens may be provided in respective interface stations or consoles.

Further in accordance with the present invention, there is provided a gaming  
25 apparatus comprising a pair of roulette wheels and arranged such that on each play of the apparatus, a respective ball is released onto the surface of each wheel and comes to rest within a compartment thereof to provide a unique result, with a player being able to select, on each play of the apparatus, whether to place a bet upon the result which might occur on the first wheel (a single-wheel game) and/or upon a combination of the results which might occur on  
30 the first and second wheels (a double-wheel game).

In a preferred double-wheel game, a player is rewarded if the same specific result occurs on both wheels and if the player has placed a bet upon that winning result.

Preferably the apparatus is arranged such that the two balls come to rest at different times, with the first result preferably determining the outcome of the single-wheel game. The balls preferably come to rest in the same order on each play of the apparatus. The apparatus is preferably arranged such that the second of the two balls to be released is released before  
 5 the first ball come to rest..

Still further in accordance with the present invention, there is provided a gaming apparatus comprising first and second roulette wheels and arranged such that on each play of the apparatus, respective balls are released in turn onto the surfaces of the two wheels and come to rest within respective compartments thereof, the second of the two balls to be  
 10 released being released before the first ball come to rest.

An embodiment of the present invention will now be described by way of an example only and with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view of an apparatus in accordance with the present invention;

15 FIGURE 2 is a side elevation of the apparatus of Figure 1;

FIGURE 3 is an end elevation of the apparatus; and

FIGURE 4 is a plan view of the apparatus.

Referring to the drawings, an automatic gaming apparatus is shown comprising a pair of roulette wheels 2,4, surrounded by a plurality of operating consoles 6. The two  
 20 wheels 2,4, are shrouded by respective transparent canopies 8,10 and are separated from one another by an upright, elevated display panel 12 fitted on opposite sides with respective display screens 14,16, the apparatus being arranged such that, during play, each screen 14,16 displays an image of the wheel 4,2 situated on the opposite side of the panel 12.

Each of the consoles 6 is provided with a bill acceptor 18 and a touch screen 20  
 25 via which a player may bet upon the outcome of a single-wheel game and/or a double-wheel ("super-odds") game. The apparatus is also arranged such that, during play, the touch screen 20 of each console displays an image of the wheel situated at the opposite end of the table.

In a single-wheel game, a player bets upon the result of a spin of the first wheel 2, by selecting one or more numbers on his display screen 20, one of which he hopes will  
 30 match the number of the compartment into which a ball, released onto the surface of the spinning wheel, will eventually fall.

If the player is successful in the single-wheel game, he is rewarded with a payout



of  $W \times (N+1)$ , where  $W$  is the amount of the wager placed upon the winning number and  $N$  is the number of compartments of the wheel. Thus, for a typical "double-zero" roulette wheel having 38 numbered compartments, a player placing a single unit bet on a winning number would have his wager of one unit returned, together with a reward of 38 further units.

5        In a double-wheel game, a player will receive a reward if the two balls come to rest into the same numbered compartments of both wheels 2,4, and if the number of those compartments matches one of those previously selected by the player on his display screen  
20.

      If successful in the double-wheel game, the player is rewarded with a payout of a  
10 fixed amount  $C \times W < N^2 \times W$ , where  $C$  is a constant and  $N^2 \times W$  would be the payout at full odds of  $N^2:1$ . For example, for a double-wheel game based on the outcomes of two 38 compartment wheels, a player having placed a single unit bet on a winning number might have his original wager of one unit returned, together with a reward of a further 1000 units (i.e. substantially less than the payout of  $38^2 = 1444$  units that would be made at full odds of  
15 1444:1).

      Thus, over a period of time, the apparatus will accumulate a portion of the total amount wagered by players on the double-wheel game. A portion of this accumulated amount is held as a jackpot, whose increasing value is displayed either continuously or intermittently on each of the display screens 14,16 and/or on the touch screens 20 of each of the consoles  
20 6.

      In order for a player to win the jackpot, or for a number of players to share the jackpot, the or each player must first have placed a winning bet, in a double-wheel game, on the same number occurring on both wheels 2,4. That same number must then also match a further random number generated by the apparatus. However, in order to reduce the time  
25 period between successive payout of the jackpot, the jackpot might instead be paid on some other random basis.

      If the jackpot is to be shared between a number of winning players, the division is made in proportion to the relative amounts wagered by each of the players on the winning number.

30        In each play of the apparatus, the two wheels 2,4, are preferably operated sequentially, and preferably always in the same order, with the outcome of the single-wheel game being determined by the result occurring on the first wheel to be operated. To speed up

play of the game, the second of the two balls to be released is preferably released before the first ball come to rest.

The apparatus thus described creates a heightened sense of anticipation and excitement in play as the jackpot progressively increases in value over time, and will therefore  
5 hold a player's interest for far longer than a traditional apparatus

Claims

- 1) An automatic gaming apparatus comprising a pair of roulette wheels and arranged such that on each play of the apparatus, a respective ball is released onto the surface of each wheel and comes to rest within a compartment thereof to provide a unique result, with a player  
5 being rewarded if the same result occurs on both wheels and if the player has placed a bet upon that winning result, wherein a winning player is rewarded at less than full odds, so that the apparatus progressively accumulates a portion of the total money wagered by players over a period of time, a portion of the accumulated money being held as a jackpot, the whole or a portion of which may be paid out on any play of the apparatus to a winning player in addition  
10 to his ordinary reward.
- 2) An automatic gaming apparatus as claimed in Claim 1, arranged such that the whole of the jackpot is paid out each time a player is rewarded for having bet upon a winning result occurring on both wheels.
- 3) An automatic gaming apparatus as claimed in Claim 1, arranged such that a portion  
15 of the jackpot is paid out each time a player is rewarded for having bet upon a winning result occurring on both wheels.
- 4) An automatic gaming apparatus as claimed in Claim 1, arranged such that the whole of the jackpot is paid out on a random basis.
- 5) An automatic gaming apparatus as claimed in Claim 4, arranged such that the whole  
20 of the jackpot is paid out if a randomly selected result matches a winning result occurring on both wheels.
- 6) An automatic gaming apparatus as claimed in Claim 1, arranged such that a portion of the jackpot is paid out on a random basis.
- 7) An automatic gaming apparatus as claimed in Claim 6, arranged such that said  
25 portion of the jackpot is paid out if a randomly selected result matches a winning result

occurring on both wheels.

8) An automatic gaming apparatus as claimed in any preceding claim, arranged such that if a plurality of players qualify for a jackpot payout, the jackpot is divided between those players in proportion to the relative amounts wagered by each of them on the winning number.

5 9) An automatic gaming apparatus as claimed in any preceding claim, arranged such that on each play of the apparatus a player may place a bet upon a particular result occurring on just one of the wheels.

10) An automatic gaming apparatus as claimed in any preceding claims, arranged such that the two balls come to rest at different times.

10 11) An automatic gaming apparatus as claimed in Claim 10 appended to Claim 9, arranged such that a result occurs on said just one wheel prior to a result occurring on the other wheel.

12) An automatic gaming apparatus as claimed in Claim 10 or Claim 11, arranged such that the two balls come to rest in the same order on each play of the apparatus.

15 13) An automatic gaming apparatus as claimed in any of Claims 10 to 12, arranged such that the two balls are released at different times, the second of the two balls to be released being released before the first ball come to rest.

14) An automatic gaming apparatus comprising a pair of roulette wheels and a pair of display screens, each screen being arranged to present an image of a respective one of said  
20 wheels to a player located alongside the other wheel.

15) An automatic gaming apparatus as claimed in Claim 14, wherein the two wheels are mounted adjacent one another, with the two display screens being provided on opposite sides of a panel which extends tangentially between the two wheels.

16) An automatic gaming apparatus as claimed in Claim 14, wherein the two screens are provided in respective interface stations or consoles.

17) An automatic gaming apparatus comprising a pair of roulette wheels and arranged such that on each play of the apparatus, a respective ball is released onto the surface of each  
 5 wheel and comes to rest within a compartment thereof to provide a unique result, with a player being able to select, on each play of the apparatus, whether to selectively place a bet upon the result which might occur on the first wheel (a single-wheel game) and/or upon a combination  
of the results which might occur on the first and second wheels (a double-wheel game).

18) An automatic gaming apparatus as claimed in Claim 17, arranged to provide a  
 10 double-wheel game wherein a player is rewarded if the same specific result occurs on both  
wheels and if the player has placed a bet upon that winning result.

19) An automatic gaming apparatus as claimed in Claim 18, arranged such that the two  
balls come to rest at different times, with the first ball to come to rest determining the outcome of the single-wheel game.

20) An automatic gaming apparatus as claimed in any of Claims 17 to 19, arranged such  
 15 that the two balls come to rest in the same order on each play of the apparatus.

21) An automatic gaming apparatus as claimed in any of Claims 17 to 20, arranged such  
 that the two balls are released at different times, the second of the two balls to be released  
 being released before the first ball come to rest.

22) An automatic gaming apparatus comprising first and second roulette wheels and  
 20 arranged such that on each play of the apparatus, respective balls are released in turn onto the  
surfaces of the two wheels and come to rest within respective compartments thereof, the  
second of the two balls to be released being released before the first ball come to rest.

23) An automatic gaming apparatus substantially as herein described with reference to  
 25 the accompanying drawings.



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Application No: GB 0101619.5  
 Claims searched: 1-13 & 23

Examiner: Mark Sexton  
 Date of search: 24 May 2002

## Patents Act 1977 Search Report under Section 17

### Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.T): A6H HJH

Int Cl (Ed.7): A63F 5/00, 02, 04

Other: Online: WPI, EPODOC, JAPIO

### Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X : Y	EP 0948976 A2 (COSMI) - see whole document, note particularly figures 2 & 3 and column 4 line 55- column 5 line 16	X: 17 Y: 1 & 9
X : Y	WO 00/33269 A1 (COINMASTER GAMING LIMITED) - see whole document, note particularly figure 2, second wheel 30	X: 14, 17, 18, 20 & 22 Y: 1 & 9-12
Y	BE 850078 (BINOLUX) - see WPI Abstract Accession No. 77-D7911Y/19 and the figure	1
Y	GB 2313792 A (BACK TO BACK) - see whole document, note particularly figure 1	1-3 & 8
Y	GB 2227946 A (TECHNICAL CASINO SERVICES) - see whole document, note particularly figure 1	1-3
Y	WO 97/38766 A1 (VALDEZ) - see whole document	1-3

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.



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Application No: GB 0101619.5  
Claims searched: 1-13 & 23

Examiner: Mark Sexton  
Date of search: 24 May 2002

Category	Identity of document and relevant passage		Relevant to claims
Y	US 6019374	(BREEDING) - see whole document, note particularly column 8 lines 10-24 and column 8 line 64 to column 9 line 19	1-4 & 6
Y	US 5743798	(ADAMS ET AL.) - see whole document, note particularly figures 1-5 and column 7 line 62 to column 8 line 42	1-4 & 6
Y	US 5588650	(EMAN ET AL.) - see whole document	1-4 & 6
A	US 4467424	(HEDGES ET AL.)	14
A	US 4357015	(SANTORA ET AL.)	14

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.